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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,967	09/04/2002	Sreenath Mambakkam	006284.P003	9587

8791 7590 08/24/2005

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EXAMINER	
LOHN, JOSHUA A	

ART UNIT	PAPER NUMBER
2114	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/064,967	MAMBAKKAM ET AL.	
	Examiner	Art Unit	
	Joshua A. Lohn	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 September 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 15-20* is/are rejected.

7)☒ Claim(s) *12-14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 September 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

The use of the trademarks CompactFlash, SmartMedia, Memory Stick, MultiMediaCard, Secure Digital, and XD has been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Objections

Claim 7 is objected to because of the following informalities: in lines 2-3 of claim 7 it reads "performing the of: ...", when it appears from the context that it should properly read "performing the steps of: ...". Appropriate correction is required.

Claim18 is objected to because of the following informalities: in lines 3-4 of claim 18 it reads "access to the flash media using, and wherein the physical ...", when it appears from the context that it should properly read "access to the flash media, and wherein the physical ...". Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 6-8, 11, 15, 17, 19, and 20 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5, 6, 7, and 11 of U.S. Patent No. 6,839,864, Mambakkam et al, published January 4, 2005. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claim 1 of the patent includes all of the limitations in claims 1 and 15 of the instant application. With regard to the additional limitations in claim 1 of the patent consisting of the housing including a controller, flash media connector, storage means, and memory that detect an activation event before initiating recovery, which are not included in claim 1 of the instant application, the omission of these limitations in claims 1 and 15 of the instant application is an obvious expedient since the remaining limitations of claim 1 of the patent perform the same function as the limitations in claims 1 and 15 of the instant application (*In re Karlson*, 136 USPQ 184 (CCPA 1963));

Claim 2 of the patent includes all of the limitations in claim 2 of the instant application. With regard to the additional limitations in claim 2 of the patent consisting of providing the

options of CompactFlash, MultiMedia, Secure Digital, and Sony Memory Stick memory compatibilities, which are not included in claim 2 of the instant application, the omission of these limitations in claim 2 of the instant application is an obvious expedient since the remaining limitations of claim 2 of the patent perform the same function as the limitations in claim 2 of the instant application (*In re Karlson*, 136 USPQ 184 (CCPA 1963));

Claim 2 of the patent includes all of the limitations in claim 3 of the instant application. With regard to the additional limitations in claim 2 of the patent consisting of providing the options of CompactFlash, SmartMedia, MultiMedia, and Secure Digital memory compatibilities, which are not included in claim 3 of the instant application, the omission of these limitations in claim 3 of the instant application is an obvious expedient since the remaining limitations of claim 2 of the patent perform the same function as the limitations in claim 3 of the instant application (*In re Karlson*, 136 USPQ 184 (CCPA 1963));

Claim 5 of the patent includes all of the limitations in claims 6 and 17 of the instant application. With regard to the additional limitations in claim 5 of the patent consisting of hardware disclosed in claim 1, which are not included in claims 6 and 17 of the instant application, the omission of these limitations in claims 6 and 17 of the instant application is an obvious expedient since the remaining limitations of claim 5 of the patent perform the same function as the limitations in claims 6 and 17 of the instant application (*In re Karlson*, 136 USPQ 184 (CCPA 1963));

Claim 6 of the patent includes all of the limitations in claims 7 and 19 of the instant application. With regard to the additional limitations in claim 6 of the patent consisting of hardware disclosed in claim 1, which are not included in claims 7 and 19 of the instant

application, the omission of these limitations in claims 7 and 19 of the instant application is an obvious expedient since the remaining limitations of claim 6 of the patent perform the same function as the limitations in claims 7 and 19 of the instant application (*In re Karlson*, 136 USPQ 184 (CCPA 1963));

Claim 7 of the patent includes all of the limitations in claims 8 and 20 of the instant application. With regard to the additional limitations in claim 7 of the patent consisting of hardware disclosed in claim 1, which are not included in claims 8 and 20 of the instant application, the omission of these limitations in claims 8 and 20 of the instant application is an obvious expedient since the remaining limitations of claim 7 of the patent perform the same function as the limitations in claims 8 and 20 of the instant application (*In re Karlson*, 136 USPQ 184 (CCPA 1963));

Claim 11 of the patent includes all of the limitations in claim 11 of the instant application. With regard to the additional limitations in claim 11 of the patent consisting of the housing including a controller, flash media connector, storage means, and memory that detect an activation event before initiating recovery, which are not included in claim 11 of the instant application, the omission of these limitations in claim 11 of the instant application is an obvious expedient since the remaining limitations of claim 11 of the patent perform the same function as the limitations in claim 11 of the instant application (*In re Karlson*, 136 USPQ 184 (CCPA 1963)).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-5, 8-10, 15, 16, and 20 are rejected under 35 U.S.C. 102(a) as being anticipated by "Building the Ultimate Photo Recovery Kit", by Rob Galbraith, published January 23, 2002, hereinafter Galbraith, with inherit features further disclosed in the DataRescue PhotoRescue™ Specifications, archived August 27, 2001, http://web.archive.org/web/20010827073251/ www.datarescue.com/photorescue/spec.htm, hereinafter PhotoRescue™ Specifications, and EasyRecovery™ Professional Edition User Guide, Copyrighted 2000, hereinafter EasyRecovery.

As per claim 1, Galbraith discloses a method for recovering data from flash media, comprising: accessing the flash media at a low level to access raw flash data stored on the flash media (Galbraith, page 5, where the data accessed is the raw flash data that forms the structure of the files); searching the raw flash data for file indicia corresponding to a selected file type (Galbraith, page 5, where file indicia indicate the types of files selected for compatibility with the program); and reading data from the raw flash data based on information in the file indicia, said data comprising a recovered file (Galbraith, page 5).

As per claim 2, Galbraith further discloses that the flash media comprises a SmartMedia® -compatible device (inherent in the DataRescue PhotoRescue™ program, see PhotoRescue™. Specifications, where the program supports SmartMedia®).

As per claim 3, Galbraith further discloses that the flash media comprises a Sony Memory Stick®-Compatible device (inherent in the DataRescue PhotoRescue™ program, see PhotoRescue™ Specifications, where the program supports Memory Sticks®).

As per claim 4, Galbraith further discloses storing the data corresponding to the recovered file in a new file (Galbraith, page 17, where files recovered off of the flash memory can be saved).

As per claim 5, Galbraith further discloses enabling a user to name the new file (Galbraith, page 17, where the files are recovered and saved in a Windows XP® operating system, in which it is inherent that the user can name files as desired).

As per claim 8, Galbraith further discloses determining a starting location from which to search the flash media; and sequentially searching through the flash media for file indicia using one of a physical or logical storage sequence (inherent in the EasyRecovery™ program, see EasyRecovery, page 25, where the physical media is searched sequentially).

As per claim 9, Galbraith further discloses defining an application program interface (API) comprising a set of pass-through commands to enable a software program to low-level access of the flash media using the set of pass-through commands (inherent in the EasyRecovery™ program, see EasyRecovery, page 27, where the RAW scan is the API that includes commands to provide low level access to the data it is inherent that these commands are pass-through commands by their nature of accessing the data in an unmodified, raw form); and employing the software program to access the raw flash data searching for data file indicia and reading the corresponding recovered file data via the API calls (inherent in the EasyRecovery™

Program, see EasyRecovery, page 32, where the files are found by the scan, and by virtue of this identification must include some file indicia allowing for the identification of valid files).

As per claim 10, Galbraith further discloses defining an API including a plurality of respective sets of pass-through commands (inherent in the EasyRecovery™ Program, as shown above in reference to page 32 of EasyRecovery), each respective set corresponding to a specific type of flash media (inherent in the EasyRecovery™ Program, see EasyRecovery, page 19, where the commands are generated based on the partition information); determining a type of the flash media (inherent in the EasyRecovery™ Program, see EasyRecovery, page 19, where the partition information defines the media type, also see Galbraith, page 14-15); and employing the set of pass-through commands corresponding to the type of flash media determined with the software program to recover the file (Galbraith, pages 14-15).

As per claim 15, Galbraith discloses a machine-readable media having instructions stored thereon (Galbraith, page 3), which when executed recover data from corrupted flash media by performing operations including: accessing raw flash data stored on the flash media using a low-level access mechanism (Galbraith, page 5, where the data accessed is the raw flash data that forms the structure of the files); searching the raw flash data for file indicia corresponding to a selected file type (Galbraith, page 5, where file indicia indicate the types of files selected for compatibility with the program); and reading data from the raw flash data based on information in the file indicia, said data comprising a recovered file (Galbraith, page 5).

As per claim 16, Galbraith discloses that the execution of the instructions further perform the operation of providing a user interface by which a user may select specific file types for

which to search the flash media to recover corresponding files for (inherent in the EasyRecovery™ program, see EasyRecovery, page 22).

As per claim 20, Galbraith further discloses determining a starting location from which to search the flash media; and sequentially searching through the flash media for file indicia using one of a physical or logical storage sequence (inherent in the EasyRecovery™ program, see EasyRecovery, page 25, where the physical media is searched sequentially).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6, 7, 11, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galbraith in view of Wells et al., United States Patent number 5,437,020, published July 25, 1995.

As per claim 6, Galbraith fails to disclose building a physical-logical table and searching based upon logical sectors.

Wells discloses building a physical-to-logical table mapping physical storage locations to logical storage locations (Wells, col. 4, line 39 through col. 5, line 24, and col. 5, lines 55-68, where relations are established in the headers, which act as a table to indicate mapping); and sequentially searching through logical sectors in search of the file indicia based on the physical-to-logical table (Wells, col. 13, lines 9-19, which shows sequential searching of the logical sectors).

It would have been obvious to one skilled in the art at the time of the invention to use the table and logical organizations of Wells to effectively scan the memory as desired by Galbraith.

This would have been obvious because Galbraith discloses a strong desire to fully scan the memory in an effort to find all recoverable and valid files (Galbraith, page 5). The methods of Wells provide an obvious means for satisfying the desires of Galbraith by scanning all sectors of a memory to check which are valid (Wells, col. 3, lines 31-43).

As per claim 7, Galbraith fails to disclose that the file indicia is a header, and scanning based upon this header information.

Wells discloses file indicia that comprises a file header, and in response to finding a file header the method includes performing the of: extracting a file size from the file header corresponding to a file (Wells, col. 12, lines 31-37); reading data beginning with the file header or a starting point identified by the file header up to the file size (Wells, col. 13, lines 46-54).

It would have been obvious to one skilled in the art at the time of the invention to use the header information of Wells to effectively scan the memory as desired by Galbraith.

This would have been obvious because Galbraith discloses a strong desire to fully scan the memory in an effort to find all recoverable and valid files (Galbraith, page 5). The methods of Wells provide an obvious means for satisfying the desires of Galbraith by scanning all sectors of a memory to check which are valid (Wells, col. 3, lines 31-43).

As per claim 11, Galbraith discloses a method for recovering data from flash media (Galbraith, page 1) comprising: determining a media type of the flash media (Galbraith, page 16, where the type of media is defined by defining the card information) and reading the raw flash data to search for selected file types(Galbraith, page 5). Galbraith fails to disclose building a physical-to-logical table mapping and searching based on header information.

Wells discloses building a physical-to-logical table mapping physical storage locations to physical storage locations based on the type of flash media (Wells, col. 4, line 39 through col. 5, line 24, and col. 5, lines 55-68, where the sector values are dependent upon the media type, col.

11, lines 1-4); searching the flash media for a file header corresponding to locate valid files using the physical-to-logical table (Wells, col. 13, lines 9-19, where all headers are searched sequentially and would indicate any valid file headers); and reading data from the raw flash data based on information in the file header (Wells, col. 16, lines 46-54).

It would have been obvious to one skilled in the art at the time of the invention to use the mapping and header information of Wells to effectively scan the memory as desired by Galbraith.

This would have been obvious because Galbraith discloses a strong desire to fully scan the memory in an effort to find all recoverable and valid files (Galbraith, page 5). The methods of Wells provide an obvious means for satisfying the desires of Galbraith by scanning all sectors of a memory to check which are valid (Wells, col. 3, lines 31-43).

As per claim 17, Galbraith fails to disclose building a physical-logical table and searching based upon logical sectors.

Wells discloses building a physical-to-logical table mapping physical storage locations to logical storage locations (Wells, col. 4, line 39 through col. 5, line 24, and col. 5, lines 55-68, where relations are established in the headers, which act as a table to indicate mapping); and sequentially searching through logical sectors in search of the file indicia based on the physical-to-logical table (Wells, col. 13, lines 9-19, which shows sequential searching of the logical sectors).

It would have been obvious to one skilled in the art at the time of the invention to use the table and logical organizations of Wells to effectively scan the memory as desired by Galbraith.

This would have been obvious because Galbraith discloses a strong desire to fully scan the memory in an effort to find all recoverable and valid files (Galbraith, page 5). The methods of Wells provide an obvious means for satisfying the desires of Galbraith by scanning all sectors of a memory to check which are valid (Wells, col. 3, lines 31-43).

As per claim 19, Galbraith fails to disclose that the file indicia is a header, and scanning based upon this header information.

Wells discloses file indicia that comprises a file header, and in response to finding a file header the method includes performing the of: extracting a file size from the file header corresponding to a file (Wells, col. 12, lines 31-37); reading data beginning with the file header or a starting point identified by the file header up to the file size (Wells, col. 13, lines 46-54).

It would have been obvious to one skilled in the art at the time of the invention to use the header information of Wells to effectively scan the memory as desired by Galbraith.

This would have been obvious because Galbraith discloses a strong desire to fully scan the memory in an effort to find all recoverable and valid files (Galbraith, page 5). The methods of Wells provide an obvious means for satisfying the desires of Galbraith by scanning all sectors of a memory to check which are valid (Wells, col. 3, lines 31-43).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 15-20 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 15-20 are directed to a series of instructions contained on a machine-readable media, where the media is defined in the specification to include propagated signals. Propagated signals are non-tangible storage media and do not meet the statutory requirements of 35 U.S.C. 101, only tangible storage media (RAM, ROM, magnetic disk, flash memory, etc.) are of a statutory, patentable nature.

Allowable Subject Matter

Claims 12, 13, and 14 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and written to overcome any minor informalities.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is provided on form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua A. Lohn whose telephone number is (571) 272-3661. The examiner can normally be reached on M-F 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAL

SCOTT BADERMAN
PRIMARY EXAMINER